

thence enlarged to about 4 mm at throat, the tube pale buff, the lobes lilac, oval, 5 mm long and 2.5 mm wide, rounded at tip; ovary glabrous; fruit not seen.

Type in the Herbarium of the Field Museum of Natural History, no. 1046653, collected along road between Finca Pirineos and Calahuché, Department of Quezaltenango, Guatemala, altitude 1,200 to 1,300 meters, January 27, 1940, by Julian A. Steyermark (no. 35020); isotype in the U. S. National Herbarium, no. 1820953.

This species may be recognized by its narrow, sparingly branched panicles of flowers, which are said by the collector to be pale buff and lilac.

Odontonema galbanum Leonard, sp. nov.

Frutex, caulibus glabris vel parce et minute pubescentibus; lamina foliorum oblonga, longe acuminata, basi angustata, plus minusve falcata; panicula angusta, terminalis; bracteae subulatae, glabrae; calyx glaber, segmentis subulatis; corolla glabra, galbana, labio superiore bilobo, lobis parvis, rotundatis, ciliolatis, inferiore trilobo, lobis ovalibus, parce ciliolatis; ovarium glabrum.

Shrub up to 2 meters high; stems glabrous or sparingly and minutely appressed-pubescent;

leaf blades oblong, up to 36 cm long and 5.5 cm wide, long-acuminate (the tip often curved), gradually narrowed at base, rather thin, veiny, the costa and lateral veins (usually 10 to 12 pairs) fairly prominent; inflorescence a narrow terminal panicle 20 cm long, the flowers borne in small sessile or subsessile umbels, the pedicels up to 5 mm long, these and the rachis glabrous; bracts of the rachis subulate, 3 mm long and 1 mm wide at base or less, keeled, glabrous, those subtending the pedicels similar but smaller; calyx glabrous, 2.5 to 3 mm long, the segments subulate; corolla glabrous, greenish yellow, up to 27 mm long, 2 mm in diameter at base, narrowed to 1.5 mm just above base, the throat 3 mm in diameter, the lips 5 mm long, the upper lip 2-lobed, the lobes 1.5 mm long, rounded, ciliolate, the lower lip of 3 oval lobes 3 mm wide, rounded, sparingly ciliolate at tip; ovary glabrous; fruit not seen.

Type in the U. S. National Herbarium, no. 1790033, collected in moist forest near Baranca Hondo, above Lake Lajas, Department of Escuintla, Guatemala, altitude about 1,200 meters, January 31, 1939, by Paul C. Standley (no. 63875). *Standley* 65014, collected at essentially the same locality, is also of this species.

Odontonema galbanum is easy to recognize by its slender glabrous panicle of greenish-yellow flowers.

ENTOMOLOGY.—*Some undescribed species of flies of the genus Baccha* (Syrphidae).¹ F. M. HULL, University of Mississippi. (Communicated by ALAN STONE.)

This paper presents descriptions of several species of *Baccha*. These flies were found among material lent for study by Dr. C. L. Fluke, whom I wish to thank for his kind assistance in my study of the genus. The types are in Dr. Fluke's collection. Paratypes where available are in the author's collection.

Baccha boadicea, n. sp.

Related to *gracilis* Williston. Distinguished by the small spot in the center of the wing and by the larger size.

Male.—Length 9.5 mm. Head: face and front shining black, both yellowish-white pubescent along the sides, the former bluish centrally and

with yellow pile; the face in profile without tubercle and barely concave beneath the antennae. The pile of the front is dark brown centrally. The antennae are orange, widely black above on the third joint. The vertex is shining black with black pile in front, yellow behind. Thorax: mesonotum shining black, nonvittate, short golden pilose, the humeri brown, the pleura brownish black with yellow pile and pollen, the scutellum shining black with creased rim, short yellow pile and fringe. Squamae pale. Abdomen: elongate, slender, dark brown, the first joint almost black, the third laterally yellow on the base on each side, the yellow extending about two-fifths the length of the segment. Fourth segment obscurely but narrowly yellow basally, its basal pile yellow,

¹ Received November 4, 1942.

its apical pile black. Legs: yellow on the first two pairs, their femora brownish on the basal half or more, their pile yellow. Hind femora and their tibiae, except the narrow bases, brown and black, respectively, their tarsi pale yellow. Wing: pale brown with microscopic slender alula; stigmal cell dark, and a small spot above the small cross vein brown.

Holotype, male. Pinas, Ecuador, 1,506 meters, July 14, 1941, D. B. Laddey. (Fluke collection.)

Baccha vespuccia, n. sp.

Near *papilio* Hull. The abdominal fascia and vittae are differently shaped. Abdomen widest at end of fourth segment.

Male.—Length 8–10 mm. Head: face and front brownish yellow, a shining blackish half circle over the antennae and a black spot on lunula. Antennae orange, the third joint blackish above. Thorax: mesonotum metallic brownish or aeneous-black, with a pair of rather close brown vittae. The humeri, the lateral margins, the post calli and the scutellum are light yellowish brown, the latter with a few black hairs and no fringe. Mesopleurae and pteropleurae orange; pleura posteriorly blackish. Abdomen: spatulate, the apex barely wider than the base, sepia brown, the narrow sides of the first segment yellowish; the second segment is one and a half times as long as wide with, on each side, a diagonal, yellowish fascia meeting in the midline. Third segment with a similar fascia, divided medially and medially expanded, their posterior margins indented. Fourth segment with, on each side, an inverted Y-shaped figure. Fifth with submedial, yellowish vittae and short sublateral vittae narrowly connected basally with the medial ones. Legs: brownish yellow, the hind femora and tibiae dark brown. Wings: entirely dark brown; alulae quite narrow.

Female.—Front with continuous medial vittae; mesonotum with four violet stripes.

Holotype male, allotype female, and one male paratype, Nova Teutonia, Brazil; Fritz Plauermann. (Fluke collection.)

Baccha aurora, n. sp.

Slender, without alulae. Mesonotum dark brown and yellow laterally, with two gray pollinose vittae. Related to *argentina* Curran.

Female.—Length 10 mm. Head: face and front pale yellow, the latter with a linear brown stripe on the upper part and a tiny black dot on lunula. Pile short, sparse, and black. Vertex black with gray pollen. Antennae yellow, the third joint missing. Thorax: mesonotum brassy black, with a pair of widely separated, steel-blue vittae with gray pollen that reach to the scutellum, and a similar median one on the posterior half. Lateral margins, humeri, scutellum, and all of pleura except a posterior black stripe, pale yellow. Scutellum with a few black hairs and three or four black, central fringe hairs. Abdomen: rather slender, the first segment brown, the anterior corners pale yellow with about 10 black setaceous hairs and a few long pale ones. Second segment with the base light brown and a pair of lateral, subquadrate, brownish-yellow spots just past the middle which are narrowly separated above; the remainder of this segment is blackish. Third segment with an obscure, basal, lateral vittate spot. Fourth segment with a large lateral vitta extending from the base to the posterior two-thirds, its posteromedial margin rounded. Fifth segment shining black. Legs: yellow, the hind femora and tibiae pale brown with subapical brown annulus and the tibiae with the middle paler. Hind basitarsi brownish yellow, the remaining joints dark brown. Wing: hyaline; stigmal cell very dark; no alula.

Holotype: female. Villa Rica, Paraguay, August 1939, F. Schade. (Fluke collection.)

Baccha niobe, n. sp.

Related to *placiva* Williston. The pile on the sides of the first segment is long. Wing apex with a spot.

Male.—Length 9 mm. Head: face and front yellow, with a black dot on lunula. Antennae orange; arista dark brown. The pile of the front is black. Vertex black, rather shining. Thorax: mesonotum cinnamon-brown with a violaceous stripe adjacent to the wide yellow margins. Pleura yellow with a golden reflection. Scutellum brownish orange with a few slender brown hairs and no fringe. Abdomen: elongate, slender, the second and third segments cylindrical. First segment orange and brown, the second orange-brown basally, black on the posterior half, shining apically, in the middle with a pair of oblique, leaflike spots that are

narrowly separated above; these spots are margined on all sides by opaque black, the opaque black forming a triangle behind. Third segment similar, the oblique spots and the median black extend narrowly to the base. Fourth segment with small black triangles in the anterior corners and a large, orange spot basally on each side, its medial margins parallel, its posterior margins oblique and serving to extend the spots apically to the lateral margins. Last segment violaceous-black. Legs: yellow, the hind femora brown at base and with a wide, brown preapical band, their tibiae broadly brown through the middle. Wing: light brown, diffusely blackish at the tip, the alula quite narrow but equally developed throughout.

Holotype: male. Palmar, Manabi, Ecuador, 200 meters, April 10, 1941, D. B. Laddey; a paratype male with same data. (Fluke collection.)

***Baccha danaida*, n. sp.**

Related to *sepia* Hull. The first abdominal segment is yellow on the sides, the third segment has a pair of triangles. The cheeks and pleura are wholly dark brown.

Male.—Length 11 mm. Head: face and cheeks yellow; the tubercle and a stripe above are brown; the front is widely black above but yellow on the sides. It is black pilose. Antennae orange-brown, the arista darker. Thorax: mesonotum brassy brown with a pair of wide, prominent, reddish-brown vittae; the lateral margins are yellowish brown. The pleurae are metallic, dark brown, blackish behind, yellowish on mesopleurae and upper sternopleurae. Scutellum light yellowish brown with sparse dark hair and no fringe. Abdomen: spatulate, wide basally, sepia brown, the sides of the first segment yellow with long black hairs, the second has a slender, diagonal, laterally expanded pair of fascia; the third as a pair of central, narrowly separated, triangular spots. The fourth segment has a pair of comma-shaped spots, and fifth a pair of basal, obscure vittae, laterally extended. Legs: first pair brownish yellow; middle femora light brown,

their tibiae and tarsi yellowish; hind femora dark brown, their tibiae black, their basitarsi brown basally, its apex and all the remaining segments yellow. Wing: wholly dark brown, stigma narrow.

Holotype: male. Nova Teutonia, Brazil; Fritz Plaumann. (Fluke collection.)

***Baccha saffrona*, n. sp.**

Abdomen with oblique, triangular vittae, wing light brown, alula rudimentary. Related to *scintillans* Hull.

Male.—Length 9 mm. Head: face and front yellow, a black dot on the lunula; antennae orange-brown with blackish arista. Frontal pile long and black. Thorax: mesonotum light reddish brown, the sides yellowish brown. Vittae if present obscured; scutellum yellowish or reddish brown, the whole pleura yellow-brown. Abdomen: slender, subcylindrical, reddish brown on the first segment and base of second, the latter with a pair of oblique, leaflike orange spots near the middle, not meeting above and margined with opaque black. Third segment with similar, longer, more triangular spots, which reach the base of the segment. Base of segment otherwise blackish, blue-green in the lateral corners. Fourth segment with a similar wider spot more widely extended on the base of the segment, the corners and posterior margin of this segment and the whole of the fifth segment, except for a pair of small basal spots, peacock-blue. Legs: deep yellow, the hind femora quite brown at base and subapically, yellow in the middle, their tarsi dark brown except at base and extreme apex, their tarsi deep yellow. Wing: wholly light brown, the stigmal cell darker; the alula quite narrow.

Female.—Similar to the male, spots absent on fifth segment, the blue areas more violet and the apex of the wings with an ill-defined smoky spot, the whole wing pale. This may belong to a different species.

Holotype: male. Palmar, Manabi, Ecuador, April 7, 1941, D. B. Laddey. Allotype, female; two paratypes, males, two females, all same data. (Fluke collection.)